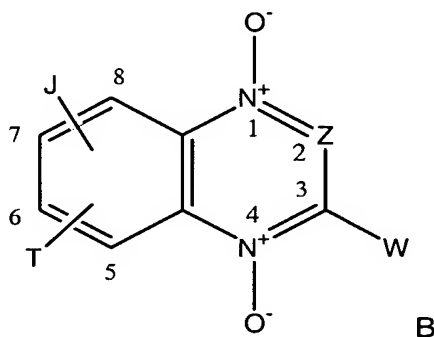
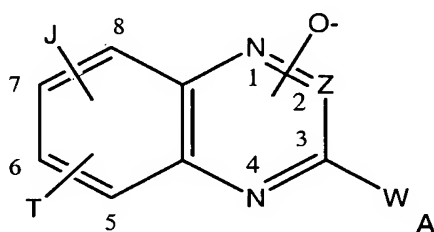


## Claims

- 1 A cytotoxic synergistic composition, comprising an effective amount of a  
 5 benzoazine N-mono oxide compound of Formula A or a pharmacologically acceptable salt thereof and an effective amount of a benzoazine 1,4 dioxide compound of Formula B or a pharmacologically acceptable salt thereof



wherein in Formulae A or B  
 Z is N or C-CN, and

- 15 wherein in Formula A when Z represents N, the N-oxide moiety occupies one of the 1-, 2-, or 4-positions; and when Z represents C-CN, the N-oxide moiety occupies one of the 1-, or 4-positions;

- wherein J in Formulae A or B represents at one or more of the available carbons 5-8 on  
 20 the benzo ring the following groups:

halo, H, R, OH, OR, NO<sub>2</sub>, NH<sub>2</sub>, NHR, NR<sub>2</sub>, SH, SR, SO<sub>2</sub>R, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R, CHO, COR, CONH<sub>2</sub>, CONHR or CONRR, cyclic alkylamino, imidazolyl, alkylpiperazinyl, morpholino;

- wherein each R is independently selected from an optionally substituted  
 25 C<sub>1-6</sub> alicyclic or an optionally substituted C<sub>3-6</sub> cyclic alkyl group, and wherein the said optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NO<sub>2</sub>, NH<sub>2</sub>,

$\text{NHR}^1$ ,  $\text{NR}^1\text{R}^1$ ,  $\text{SH}$ ,  $\text{SR}^1$ , imidazolyl,  $\text{R}^1$ -piperazinyl, morpholino,  $\text{SO}_2\text{R}^1$ ,  $\text{CF}_3$ ,  $\text{CN}$ ,  $\text{CO}_2\text{H}$ ,  $\text{CO}_2\text{R}^1$ ,  $\text{CHO}$ ,  $\text{COR}^1$ ,  $\text{CONH}_2$ ,  $\text{CONHR}^1$ ,  $\text{CONR}^1\text{R}^1$ ;

R can also represent an optionally substituted aryl or an optionally substituted heteroaryl group having up to 12 carbon atoms, and wherein the optional substituents are each independently selected from; halo, OH,  $\text{OR}^1$ ,  $\text{NH}_2$ ,  $\text{NHR}^1$ ,  $\text{NR}^1\text{R}^1$ ,  $\text{SH}$ ,  $\text{SR}^1$ , imidazolyl,  $\text{R}^1$ -piperazinyl, morpholino,  $\text{SO}_2\text{R}^1$ ,  $\text{CF}_3$ ,  $\text{CN}$ ,  $\text{CO}_2\text{H}$ ,  $\text{CO}_2\text{R}^1$ ,  $\text{CHO}$ ,  $\text{COR}^1$ ,  $\text{CONH}_2$ ,  $\text{CONHR}^1$ ,  $\text{CONR}^1\text{R}^1$ , and each heteroaryl group contains one or more heteroatoms in its ring system which are each independently selected from O, N or S;

wherein each  $\text{R}^1$  is independently selected from an optionally substituted

$\text{C}_{1-4}$  alkyl or an optionally substituted  $\text{C}_{2-4}$  alkenyl group and wherein the optional substituents are each independently selected from OH, OR,  $\text{NH}_2$ ,  $\text{NHR}^2$ ,  $\text{NR}^2_2$  or  $\text{N(OH)R}^2$  wherein each  $\text{R}^2$  is independently selected from  $\text{C}_{1-4}$  alkyl,  $\text{C}_{2-4}$  alkenyl, OH,  $\text{NO}_2$ ,  $\text{NH}_2$ ,  $\text{CF}_3$ ,  $\text{CN}$ ,  $\text{CO}_2\text{H}$  or  $\text{SH}$ , and

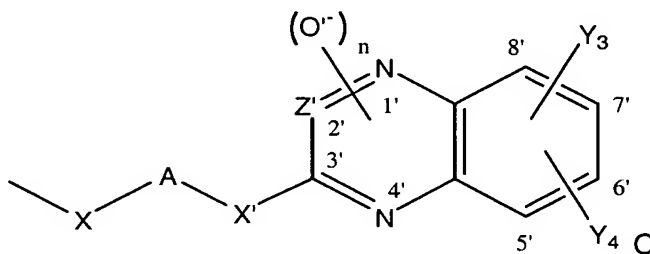
wherein W in Formulae A or B can represent  $-\text{X}-\text{A}$ , wherein  $-\text{X}-\text{A}$  together can represent H, or halogen; or

X represents O, S, NH, NMe,  $\text{CH}_2$ , SO,  $\text{SO}_2$ , CONH, NHCO, CO or  $\text{CO}_2$ , and

A represents H, an optionally substituted  $\text{C}_{1-12}$  alkyl group wherein the optional substituents are each independently selected from OH,  $\text{OR}^3$ ,  $\text{NH}_2$ ,  $\text{NHR}^3$ ,  $\text{NR}^3_2$ , or

$\text{N(OH)R}^3$  wherein each  $\text{R}^3$  is independently selected from  $\text{C}_{1-4}$  alkyl,  $\text{C}_{2-4}$  alkenyl, OH,  $\text{NO}_2$ ,  $\text{NH}_2$ ,  $\text{CF}_3$ ,  $\text{CN}$ ,  $\text{CO}_2\text{H}$  or  $\text{SH}$ ; and wherein the optionally substituted  $\text{C}_{1-12}$  alkyl chain can optionally interrupted or extended by one or more heteroatom containing linkage moieties selected from O, NH,  $\text{NR}^4$ , CONH,  $\text{CONR}^4$ , NHCO,  $\text{NR}^4\text{CO}$ , where each  $\text{R}^4$  is independently selected from an optionally substituted  $\text{C}_{1-4}$  alkyl or an optionally substituted  $\text{C}_{2-4}$  alkenyl group and wherein the optional  $\text{R}^4$  substituents are each independently selected from OH, OR,  $\text{NH}_2$ ,  $\text{NHR}^5$ ,  $\text{NR}^5_2$  or  $\text{N(OH)R}^5$  wherein each  $\text{R}^5$  is independently selected from  $\text{C}_{1-4}$  alkyl,  $\text{C}_{2-4}$  alkenyl, OH,  $\text{NO}_2$ ,  $\text{NH}_2$ ,  $\text{CF}_3$ ,  $\text{CN}$ ,  $\text{CO}_2\text{H}$  or  $\text{SH}$ , or a pharmacologically acceptable salt thereof, or

W can represent a group of Formula C



wherein in a group of Formula C

n represents either 1 or 2,

Z' is selected from N or C-CN, and when Z' represents N, and n represents 1 the N-oxide moiety occupies one of the 1'-, 2'-, or 4'-positions and when Z' represents C-

5 CN, the N-oxide moiety occupies one of the 1'-, or 4'-positions; and when Z' represents N or C-CN, and n represents 2 the N-oxide moieties occupy the 1' and 4'-positions

Y<sub>3</sub> and Y<sub>4</sub> each represent at one or more of the available carbons 5'-8' on the benzo ring the following groups:

10 halo, H, R, OH, OR, NO<sub>2</sub>, NH<sub>2</sub>, NHR, NR<sub>2</sub>, SH, SR, SO<sub>2</sub>R, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R, CHO, COR, CONH<sub>2</sub>, CONHR or CONRR, cyclic alkylamino, imidazolyl, alkylpiperazinyl, morpholino;

wherein each R is independently selected from an optionally substituted

15 C<sub>1-6</sub> alicyclic or an optionally substituted C<sub>3-6</sub> cyclic alkyl group, and wherein the said optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NO<sub>2</sub>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>;

R can also represent an optionally substituted aryl or an optionally substituted heteroaryl group having up to 12 carbon atoms, and wherein the optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>, and each heteroaryl group contains one or more heteroatoms in its ring system which are each independently selected from O, N or S;

wherein each R<sup>1</sup> is independently selected from an optionally substituted

25 C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>2</sup>, NR<sup>2</sup><sub>2</sub> or N(OH)R<sup>2</sup> wherein each R<sup>2</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, and

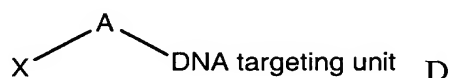
30 X' represents O, NH, NMe, or CH<sub>2</sub>,

A represents an optionally substituted C<sub>1-12</sub> alkyl group wherein the optional substituents are each independently selected from OH, OR<sup>3</sup>, NH<sub>2</sub>, NHR<sup>3</sup>, NR<sup>3</sup><sub>2</sub>, or N(OH)R<sup>3</sup> wherein each R<sup>3</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH; and wherein the optionally substituted C<sub>1-12</sub> alkyl chain is optionally interrupted or extended by one or more heteroatom containing linkage moieties selected from O, NH, NR<sup>4</sup>, CONH, CONR<sup>4</sup>, NHCO, NR<sup>4</sup>CO, where each R<sup>4</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an

optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional R<sup>4</sup> substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>5</sup>, NR<sup>5</sup><sub>2</sub> or N(OH)R<sup>5</sup> wherein each R<sup>5</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, or

5

W can represent a group of Formula D



10 wherein X represents NH, NMe, CH<sub>2</sub>, or O;

A represents an optionally substituted C<sub>1-12</sub> alkyl group wherein the optional substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>3</sup>, NR<sup>3</sup><sub>2</sub>, or N(OH)R<sup>3</sup> wherein each R<sup>3</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH; and wherein the optionally substituted C<sub>1-12</sub> alkyl

15 chain is optionally interrupted or extended by one or more heteroatom containing linkage moieties selected from O, NH, NR<sup>4</sup>, CONH, CONR<sup>4</sup>, NHCO, NR<sup>4</sup>CO, where each R<sup>4</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional R<sup>4</sup> substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>5</sup>, NR<sup>5</sup><sub>2</sub> or N(OH)R<sup>5</sup> wherein  
20 each R<sup>5</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, and

wherein the DNA-targeting unit is any moiety of a molecular weight below 700 Daltons that has an association constant (K) for binding to double-stranded random sequence DNA of >10<sup>3</sup> M<sup>-1</sup> at an ionic strength of 0.01 M at 20 °C,

25

wherein T in Formulae A or B, represent at one of carbons 5-8 on the benzo ring the following groups:

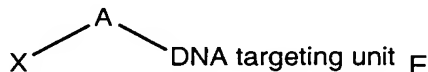
halo, H, R, OH, OR, NO<sub>2</sub>, NH<sub>2</sub>, NHR, NR<sub>2</sub>, SH, SR, SO<sub>2</sub>R, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R, CHO, COR, CONH<sub>2</sub>, CONHR or CONRR, cyclic alkylamino, imidazolyl, alkylpiperazinyl,  
30 morpholino;

wherein each R is independently selected from an optionally substituted C<sub>1-6</sub> alicyclic or an optionally substituted C<sub>3-6</sub> cyclic alkyl group, and wherein the said optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NO<sub>2</sub>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>;  
35

R can also represent an optionally substituted aryl or an optionally substituted heteroaryl group having up to 12 carbon atoms, and wherein the optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>,  
 5 CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>, and each heteroaryl group contains one or more heteroatoms in its ring system which are each independently selected from O, N or S;

wherein each R<sup>1</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>2</sup>, NR<sup>2</sup><sub>2</sub> or  
 10 N(OH)R<sup>2</sup> wherein each R<sup>2</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, or

T represents a group of Formula E



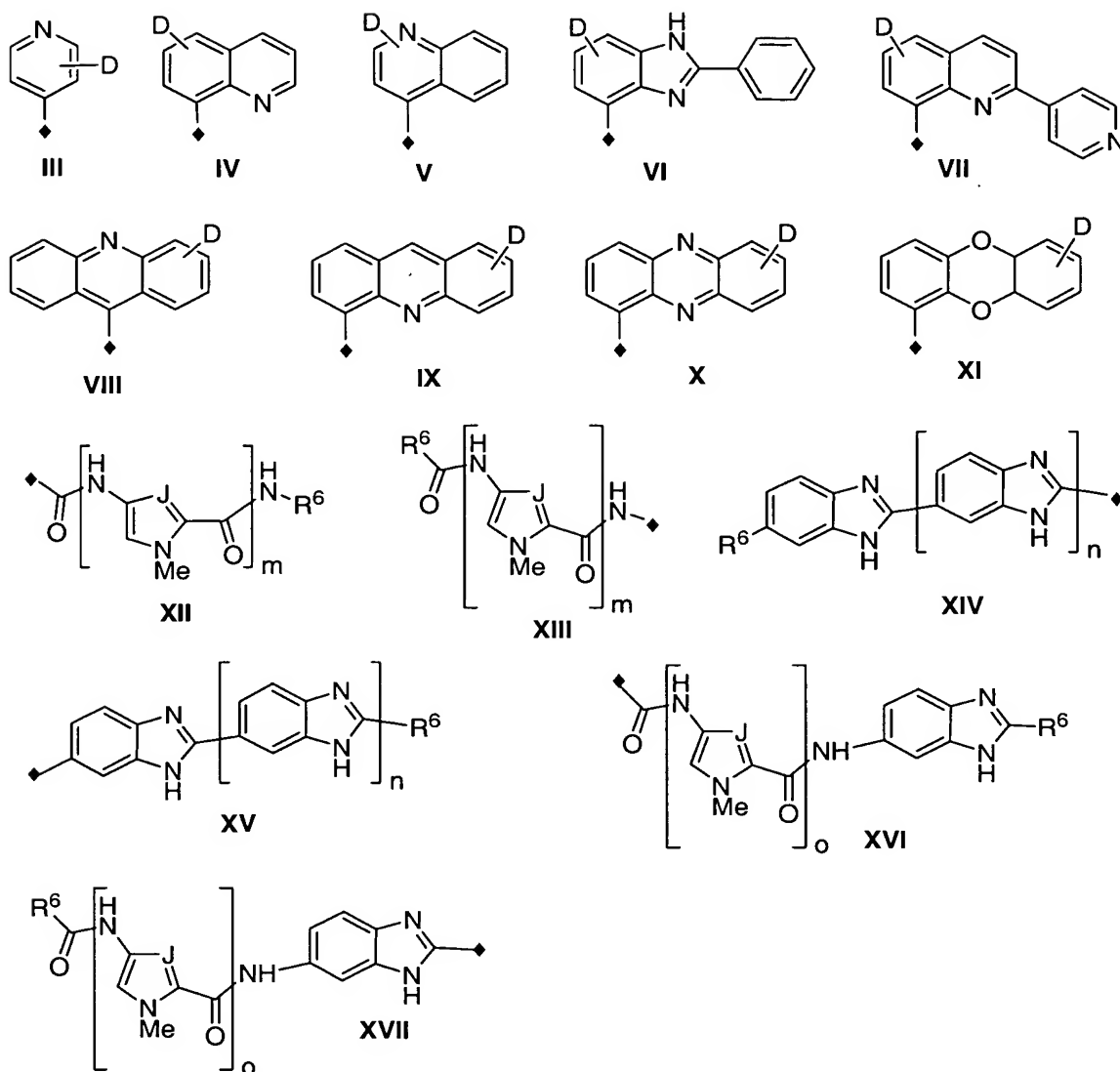
15

wherein X represents O, S, NH, NMe, CH<sub>2</sub>, SO, SO<sub>2</sub>, CONH, NHCO, CO, CO<sub>2</sub>, or O and

A represents an optionally substituted C<sub>1-12</sub> alkyl group wherein the optional substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>3</sup>, NR<sup>3</sup><sub>2</sub>, or  
 20 N(OH)R<sup>3</sup> wherein each R<sup>3</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH; and wherein the optionally substituted C<sub>1-12</sub> alkyl chain is optionally interrupted or extended by one or more heteroatom containing linkage moieties selected from O, NH, NR<sup>4</sup>, CONH, CONR<sup>4</sup>, NHCO, NR<sup>4</sup>CO, where each R<sup>4</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an  
 25 optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional R<sup>4</sup> substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>5</sup>, NR<sup>5</sup><sub>2</sub> or N(OH)R<sup>5</sup> wherein each R<sup>5</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, and

wherein the DNA-targeting unit is any moiety of a molecular weight below 700 Daltons  
 30 that has an association constant (K) for binding to double-stranded random-sequence DNA of >10<sup>3</sup> M<sup>-1</sup> at an ionic strength of 0.01 M at 20 °C.

2 A composition according to claim 1 wherein the DNA targeting agent defined in claim 1 for a group of Formula D or Formula E is independently selected from any one  
 35 of the formulae III- XVII,



wherein in structures **XII-XVII** R<sup>6</sup> is independently selected from an optionally substituted C<sub>1-6</sub> alicyclic or an optionally substituted C<sub>3-6</sub> cyclic alkyl group, and wherein the optional substituents are each independently selected from; halo, OH, OR<sup>7</sup>, NO<sub>2</sub>, NH<sub>2</sub>, NHR<sup>7</sup>, NR<sup>7</sup>R<sup>7</sup>, SR<sup>7</sup>, imidazolyl, R<sup>7</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>7</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>7</sup>, CHO, COR<sup>7</sup>, CONH<sub>2</sub>, CONHR<sup>7</sup>, CONR<sup>7</sup>R<sup>7</sup>;

R<sup>6</sup> can also represent an optionally substituted aryl or an optionally substituted heteroaryl group having up to 12 carbon atoms, and wherein the optional substituents are each independently selected from; halo, OH, OR<sup>7</sup>, NH<sub>2</sub>, NHR<sup>7</sup>, NR<sup>7</sup>R<sup>7</sup>, SH, SR<sup>7</sup>, imidazolyl, R<sup>7</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>7</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>7</sup>, CHO, COR<sup>7</sup>, CONH<sub>2</sub>, CONHR<sup>7</sup>, CONR<sup>7</sup>R<sup>7</sup>, and each heteroaryl group contains one or more heteroatoms in its ring system which are each independently selected from O, N or S;

- wherein each  $R^7$  is independently selected from an optionally substituted  $C_{1-4}$  alkyl or an optionally substituted  $C_{2-4}$  alkenyl group and wherein the optional substituents are each independently selected from OH,  $OR^8$ ,  $NH_2$ ,  $NHR^8$ ,  $NR^8_2$  or  $N(OH)R^8$  wherein each  $R^8$  is independently selected from  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl, OH,  $NO_2$ ,  $NH_2$ ,  $CF_3$ ,  $CN$ ,  $CO_2H$  or  $SH$ ;
- D represents up to four of the following groups as substituents at any available ring carbon position; H,  $R^9$ , hydroxy, alkoxy, halogen,  $NO_2$ ,  $NH_2$ ,  $NHR^9$ ,  $NR^9_2$ ,  $SH$ ,  $SR^9$ ,  $SO_2R^9$ ,  $CF_3$ ,  $CN$ ,  $CO_2H$ ,  $CO_2R^9$ ,  $CHO$ ,  $COR^9$ ,  $CONH_2$ ,  $CONHR^9$  or  $CONR^9R^9$ , cyclic alkylamino, imidazolyl, alkylpiperazinyl, morpholino, wherein each  $R^9$  is independently selected from an optionally substituted  $C_{1-4}$  alkyl or an optionally substituted  $C_{2-4}$  alkenyl group and wherein the optional substituents are each independently selected from OH,  $OR^{10}$ ,  $NH_2$ ,  $NHR^{10}$ ,  $NR^{10}_2$  or  $N(OH)R^{10}$  wherein each  $R^{10}$  is independently selected from  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl, OH,  $NO_2$ ,  $NH_2$ ,  $CF_3$ ,  $CN$ ,  $CO_2H$  or  $SH$ ;
- and wherein any available ring carbon position of formulae **III - XVII** can also be optionally replaced by  $-N-$  when the valency and configuration of the formula allows, the point of attachment of formulae **III- XVII** to the A group defined above is represented by  $\blacklozenge$ ; and
- wherein in formulae **XII, XIII**, m is selected from 2, 3 or 4, and
- wherein in formulae **XII, XIII, XVI and XVII**, J is selected from CH or N;
- and wherein in formulae **XIV and XV** n is selected from 0, 1 or 2;
- and wherein in formulae **XVI and XVII** o is selected from 1 and 2.
- 3 A composition according to claim 2 wherein the DNA targeting unit of Formula D  
25 or Formula E is selected from one of formulae **V, VI, VII, VIII, IX or X**.
- 4 A composition according to claim 2 wherein substituent D of the DNA targeting  
unit of Formulae **III - XI** is H or Me.
- 30 5 A composition according to claim 1 wherein W in the compound of Formula A as  
defined in claim 1 represents a  $NH(C_0-C_{12})$  optionally substituted alkyl or a  $O(C_0-C_{12})$   
optionally substituted alkyl.
- 6 A composition according to claim 5 wherein W represents  $NH_2$ ,  
35  $NHCH_2CH_2NHCH_3$ ,  $NHCH_2CH_2N(CH_3)_2$  or  $OCH_3$ .

7 A method of treating a subject in need of cancer therapy, said method comprising the steps of administering to said subject a cytotoxic effective amount of a composition including an effective amount of one or more compounds of Formula A and one or more compounds of formula B as defined in claim 1 or claim 2 to the tumour cells  
5 in said subject.

8 The method according to claim 7 wherein the steps of administration of a compound of Formula A and B are simultaneous or sequential.

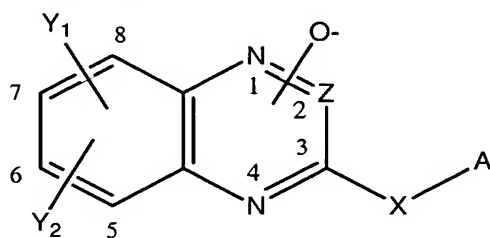
10 9 The method according to claim 7 wherein the tumour cells are in a hypoxic environment.

10 The method according to claim 7 including the further step of administering the composition as defined in claim 7 in combination with one or more other  
15 chemotherapeutic agents or treatments, including radiotherapy, either simultaneously, or sequentially, depending on the cancer therapy required.

11 The method according to claim 10 wherein radiotherapy is administered to the tumour cells before, during or after the administration of the composition.

20 12 The method according to claim 10 wherein the chemotherapeutic agents are selected from Cisplatin or other platinum-based derivatives, Temozolomide or other DNA methylating agents, cyclophosphamide or other DNA alkylating agents, doxorubicin, mitoxandrone, camptothecin or other topoisomerase inhibitors,  
25 methotrexate, gemcitabine or other antimetabolites.

13 A compound of Formula I,



wherein

30 Z is selected from N or C-CN, and when Z represents N, the N-oxide moiety occupies one of the 1-, 2-, or 4-positions; and when Z represents C-CN, the N-oxide moiety occupies one of the 1-, or 4-positions;



Y<sub>1</sub> and Y<sub>2</sub> each represent at one or more of the available carbons 5-8 on the benzo ring the following groups:

halo, H, R, OH, OR, NO<sub>2</sub>, NH<sub>2</sub>, NHR, NR<sub>2</sub>, SH, SR, SO<sub>2</sub>R, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R, CHO, COR, CONH<sub>2</sub>, CONHR or CONRR, cyclic alkylamino, imidazolyl, alkylpiperazinyl, morpholino;

wherein each R is independently selected from an optionally substituted C<sub>1-6</sub> alicyclic or an optionally substituted C<sub>3-6</sub> cyclic alkyl group, and wherein the said optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NO<sub>2</sub>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>;

R can also represent an optionally substituted aryl or an optionally substituted heteroaryl group having up to 12 carbon atoms, and wherein the optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>, and each heteroaryl group contains one or more heteroatoms in its ring system which are each independently selected from O, N or S;

wherein each R<sup>1</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>2</sup>, NR<sup>2</sup><sub>2</sub> or N(OH)R<sup>2</sup> wherein each R<sup>2</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, and

wherein A and X together represent H, or halogen; or

X represents O, S, NH, NMe or CH<sub>2</sub> and

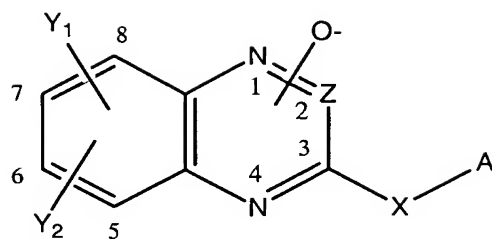
A represents H, an optionally substituted C<sub>1-12</sub> alkyl group wherein the optional substituents are each independently selected from OH, OR<sup>3</sup>, NH<sub>2</sub>, NHR<sup>3</sup>, NR<sup>3</sup><sub>2</sub>, or N(OH)R<sup>3</sup> wherein each R<sup>3</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH; and wherein the optionally substituted C<sub>1-12</sub> alkyl chain can be optionally interrupted or extended by one or more heteroatom containing linkage moieties selected from O, NH, NR<sup>4</sup>, CONH, CONR<sup>4</sup>, NHCO, NR<sup>4</sup>CO, where each R<sup>4</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional R<sup>4</sup> substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>5</sup>, NR<sup>5</sup><sub>2</sub> or N(OH)R<sup>5</sup> wherein each R<sup>5</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, or a pharmacologically acceptable salt thereof,

with the proviso that the following compounds are excluded

3-Amino-1,2,4-benzotriazine-1-oxide,

- 3-Amino-7-trifluoromethyl-1,2,4-benzotriazine-1-oxide,  
 3-Amino-7-carbamyl-1,2,4-benzotriazine-1-oxide,  
 3-Amino-7-chloro-1,2,4-benzotriazine-1-oxide,  
 3-Amino-7-nitro-1,2,4-benzotriazine-1-oxide  
 5 3-Chloro-1,2,4-benzotriazine-1-oxide,  
 3-(3-N,N-Diethylaminopropylamino)- 3-amino-1,2,4-benzotriazine-1-oxide,  
 3-Chloro-7-nitro-1,2,4-benzotriazine-1-oxide,  
 7-Nitro-(3-(2-N,N-diethylamino-ethylamino)-1,2,4-benzotriazine-1-oxide,  
 8-Methoxy-1,2,4-benzotriazin-3-amine 1-oxide,  
 10 8-Methyl-1,2,4-benzotriazin-3-amine 1-oxide,  
 8-Fluoro-1,2,4-benzotriazin-3-amine 1-oxide,  
 8-Chloro-1,2,4-benzotriazin-3-amine 1-oxide,  
 8-Trifluoromethyl-1,2,4-benzotriazin-3-amine 1-oxide,  
 8-(Methylsulfanyl)-1,2,4-benzotriazin-3-amine 1-oxide,  
 15 8-(Butylsulfanyl)-1,2,4-benzotriazin-3-amine 1-oxide,  
 3-Amino-1,2,4-benzotriazin-7-ol 1-oxide,  
 3-Amino-1,2,4-benzotriazin-7-ol 1-oxide,  
 7-Methyl-1,2,4-benzotriazin-3-amine 1-oxide,  
 7-Fluoro-1,2,4-benzotriazin-3-amine 1-oxide,  
 20 7-Chloro-1,2,4-benzotriazin-3-amine 1-oxide,  
 7-Trifluoromethyl-1,2,4-benzotriazin-3-amine 1-oxide,  
 7-(Methylsulfanyl)-1,2,4-benzotriazin-3-amine 1-oxide,  
 7-(Butylsulfanyl)-1,2,4-benzotriazin-3-amine 1-oxide,  
 7-Nitro-1,2,4-benzotriazin-3-amine 1-oxide,  
 25 6-Methoxy-1,2,4-benzotriazin-3-amine 1-oxide,  
 6-Methyl-1,2,4-benzotriazin-3-amine 1-oxide,  
 6-Phenyl-1,2,4-benzotriazin-3-amine 1-oxide,  
 6-Fluoro-1,2,4-benzotriazin-3-amine 1-oxide,  
 6-Chloro-1,2,4-benzotriazin-3-amine 1-oxide,  
 30 6-Trifluoromethyl-1,2,4-benzotriazin-3-amine 1-oxide,  
 6-(Methylsulfanyl)-1,2,4-benzotriazin-3-amine 1-oxide,  
 6-(Butylsulfanyl)-1,2,4-benzotriazin-3-amine 1-oxide,  
 5-Methoxy-1,2,4-benzotriazin-3-amine 1-oxide,  
 5-Methyl-1,2,4-benzotriazin-3-amine 1-oxide,  
 35 5-Chloro-1,2,4-benzotriazin-3-amine 1-oxide,  
 5-Fluoro-1,2,4-benzotriazin-3-amine 1-oxide,  
 N<sup>7</sup>,N<sup>7</sup>-Dimethyl-1,2,4-benzotriazine-3,7-diamine 1-oxide,

- 3-Chloro-1,2,4-benzotriazine 1-oxide,  
 3-Methyl-1,2,4-benzotriazine 1-oxide,  
 3-Ethyl-1,2,4-benzotriazine 1-oxide,  
 3-Phenyl-1,2,4-benzotriazine 1-oxide,  
 5 3-(4-Methoxyphenyl)-1,2,4-benzotriazine 1-oxide,  
 3-Vinyl-1,2,4-benzotriazine 1-oxide,  
 3-Allyl-1,2,4-benzotriazine 1-oxide,  
 3-(2-Hydroxyethyl)-1,2,4-benzotriazine 1-oxide,  
 3-(2-Methoxyethyl)-1,2,4-benzotriazine 1-oxide,  
 10 *N*-Phenyl-1,2,4-benzotriazin-3-amine 1-oxide,  
 3-Methoxy-1,2,4-benzotriazine 1-oxide,  
 3-Chloro-7-methyl-1,2,4-benzotriazine 1-oxide,  
 3-Chloro-7-methoxy-1,2,4-benzotriazine 1-oxide,  
 1,2,4-benzotriazine 1-oxide,  
 15 1,2,4-benzotriazin-3-amine 2-oxide, and  
 1,2,4-benzotriazin-3-amine 4-oxide.
- 14 The compound of Formula I according to claim 13 wherein Z is N.
- 20 15 The compound of Formula I according to claim 13 wherein X is NH or CH<sub>2</sub>.
- 16 The compound of Formula I according to claim 13 wherein  
 -X-A represents a NH(C<sub>0</sub>-C<sub>12</sub>) optionally substituted alkyl or an O(C<sub>0</sub>-C<sub>12</sub>) optionally  
 substituted alkyl, such as NHCH<sub>2</sub>CH<sub>2</sub>NHCH<sub>3</sub>, NHCH<sub>2</sub>CH<sub>2</sub>N(CH<sub>3</sub>)<sub>2</sub> or OCH<sub>3</sub>.
- 25 17 The compound of Formula I according to claim 13 wherein Y<sub>1</sub> and Y<sub>2</sub> each  
 represent H.
- 18 The compound of Formula I according to claim 13 in which the N-oxide moiety  
 30 occupies the 1-position.
- 19 A method of treating a subject in need of cancer therapy, said method  
 comprising the steps of administering to said subject a cytotoxic effective amount of a  
 compound of Formula I
- 35



wherein

Z is selected from N or C-CN, and when Z represents N, the N-oxide moiety occupies one of the 1-, 2-, or 4-positions; and when Z represents C-CN, the N-oxide moiety occupies one of the 1-, or 4-positions;

Y<sub>1</sub> and Y<sub>2</sub> each represent at one or more of the available carbons 5-8 on the benzo ring the following groups:

halo, H, R, OH, OR, NO<sub>2</sub>, NH<sub>2</sub>, NHR, NR<sub>2</sub>, SH, SR, SO<sub>2</sub>R, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R, CHO, COR, CONH<sub>2</sub>, CONHR or CONRR, cyclic alkylamino, imidazolyl, alkylpiperazinyl, morpholino;

wherein each R can be independently selected from an optionally substituted C<sub>1-6</sub> alicyclic or an optionally substituted C<sub>3-6</sub> cyclic alkyl group, and wherein the said optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NO<sub>2</sub>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>;

R can also represent an optionally substituted aryl or an optionally substituted heteroaryl group having up to 12 carbon atoms, and wherein the optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>, and each heteroaryl group contains one or more heteroatoms in its ring system which are each independently selected from O, N or S;

wherein each R<sup>1</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>2</sup>, NR<sup>2</sup><sub>2</sub> or N(OH)R<sup>2</sup> wherein each R<sup>2</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, and

wherein A and X together represent H, or halogen; or

X represents O, S, NH, NMe or CH<sub>2</sub> and

A represents H, an optionally substituted C<sub>1-12</sub> alkyl group wherein the optional substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>3</sup>, NR<sup>3</sup><sub>2</sub>, or N(OH)R<sup>3</sup> wherein each R<sup>3</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH,

NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH; and wherein the optionally substituted C<sub>1-12</sub> alkyl chain is optionally interrupted or extended by one or more heteroatom containing linkage moieties selected from O, NH, NR<sup>4</sup>, CONH, CONR<sup>4</sup>, NHCO, NR<sup>4</sup>CO, where each R<sup>4</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional R<sup>4</sup> substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>5</sup>, NR<sup>5</sup><sub>2</sub> or N(OH)R<sup>5</sup> wherein each R<sup>5</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, or a pharmacologically acceptable salt thereof

to the tumour cells in said subject.

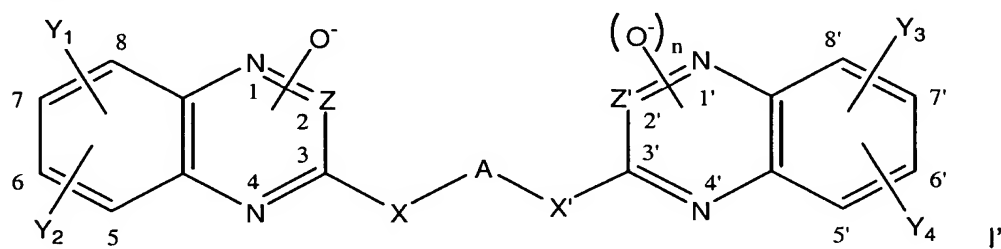
The method according to claim 19 wherein the tumour cells are in a hypoxic environment.

The method according to claim 19 further including the step of administering the compound of Formula I as defined in claim 19 in combination with one or more other chemotherapeutic agents or treatments, including radiotherapy, either simultaneously, or sequentially, depending on the cancer therapy required.

The method according to claim 19 wherein radiotherapy is administered to the tumour cells before, during or after the administration of the compound of Formula I.

The method according to claim 21 wherein the chemotherapeutic agents are selected from Cisplatin or other platinum-based derivatives, Temozolomide or other DNA methylating agents, cyclophosphamide or other DNA alkylating agents, doxorubicin, mitoxandrone, camptothecin or other topoisomerase inhibitors, methotrexate, gemcitabine or other antimetabolites.

A compound of Formula I',



wherein

n represents either 1 or 2,

Z or Z' is selected from N or C-CN, and when Z or Z' represents N, and n represents 1 each N-oxide moiety occupies one of the 1-, 2-, or 4-positions or 1'-, 2'-, or 4'-positions respectively and when Z or Z' represents C-CN, each N-oxide moiety occupies one of the 1-, or 4-positions or 1'-, or 4'-positions respectively; and when Z' represents N, and n represents 2, the N'-oxide moieties occupy the 1'- and 4'-positions and when Z' represents C-CN, and n represents 2 the N'-oxide moieties occupy the 1'-, and 4'-positions;

Y<sub>1</sub>, Y<sub>2</sub>, Y<sub>3</sub> and Y<sub>4</sub> each represent at one or more of the available carbons 5-8 or one or more of the available carbons 5'-8' on the respective benzo ring the following groups:

halo, H, R, OH, OR, NO<sub>2</sub>, NH<sub>2</sub>, NHR, NR<sub>2</sub>, SH, SR, SO<sub>2</sub>R, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R, CHO, COR, CONH<sub>2</sub>, CONHR or CONRR, cyclic alkylamino, imidazolyl, alkylpiperazinyl, morpholino;

wherein each R is independently selected from an optionally substituted C<sub>1-6</sub> alicyclic or an optionally substituted C<sub>3-6</sub> cyclic alkyl group, and wherein the said optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NO<sub>2</sub>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>;

R can also represent an optionally substituted aryl or an optionally substituted heteroaryl group having up to 12 carbon atoms, and wherein the optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>, and each heteroaryl group contains one or more heteroatoms in its ring system which are each independently selected from O, N or S;

wherein each R<sup>1</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>2</sup>, NR<sup>2</sup><sub>2</sub> or N(OH)R<sup>2</sup> wherein each R<sup>2</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, and

wherein X represents NH, NMe, CH<sub>2</sub>, or O;

A represents an optionally substituted C<sub>1-12</sub> alkyl group wherein the optional substituents are each independently selected from OH, OR<sup>3</sup>, NH<sub>2</sub>, NHR<sup>3</sup>, NR<sup>3</sup><sub>2</sub>, or N(OH)R<sup>3</sup> wherein each R<sup>3</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH; and wherein the optionally substituted C<sub>1-12</sub> alkyl chain is optionally

interrupted or extended by one or more heteroatom containing linkage moieties selected from O, NH, NR<sup>4</sup>, CONH, CONR<sup>4</sup>, NHCO, NR<sup>4</sup>CO, where each R<sup>4</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional R<sup>4</sup> substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>5</sup>, NR<sup>5</sup><sub>2</sub> or N(OH)R<sup>5</sup> wherein each R<sup>5</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, or a pharmacologically acceptable salt thereof.

25 The compound of Formula I' as claimed in claim 24 in which X is NH or CH<sub>2</sub>.

26 The compound of Formula I' as claimed in claim 24 in which Y<sub>1</sub> and Y<sub>2</sub> each represent H.

27 The compound of Formula I' as claimed in claim 24 in which A is –  
15 (CH<sub>2</sub>)<sub>2</sub>NMe(CH<sub>2</sub>)<sub>2</sub>–

28 The compound of Formula I' as claimed in claim 24 in which the N-oxides are positioned at the 1-position and the 1'-position.

29 A method of treating a subject in need of cancer therapy, said method comprising the steps of administering to said subject a cytotoxic effective amount of a compound of Formula I' as defined in claim 24 to the tumour cells in said subject.

30 The method as claimed in claim 29 wherein the tumour cells are in a hypoxic environment.

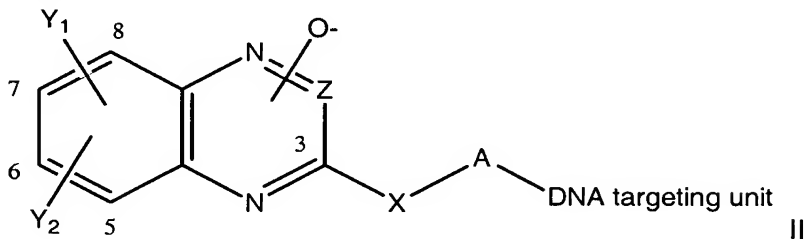
31 The method as claimed in claim 29 which includes the further step of administering the compound of Formula I' as defined in claim 24 in combination with one or more other chemotherapeutic agents or treatments, including radiotherapy, either simultaneously, or sequentially, depending on the cancer therapy required.

32 The method as claimed in claim 31 wherein radiotherapy is administered to the tumour cells before, during or after the administration of the compound of Formula I'.

33 The method as claimed in claim 31 wherein the chemotherapeutic agents are selected from Cisplatin or other platinum-based derivatives, Temozolomide or other DNA methylating agents, cyclophosphamide or other DNA alkylating agents,

doxorubicin, mitoxandrone, camptothecin or other topoisomerase inhibitors, methotrexate, gemcitabine or other antimetabolites.

34 A compound of Formula II,



wherein

Z is selected from N or C-CN, and when Z represents N, the N-oxide moiety occupies one of the 1-, 2-, or 4-positions; and when Z represents C-CN, the N-oxide moiety occupies one of the 1-, or 4-positions;

10 Y<sub>1</sub> and Y<sub>2</sub> each represent at one or more of the available carbons 5-8 on the benzo ring the following groups:

halo, H, R, OH, OR, NO<sub>2</sub>, NH<sub>2</sub>, NHR, NR<sub>2</sub>, SH, SR, SO<sub>2</sub>R, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R, CHO, COR, CONH<sub>2</sub>, CONHR or CONRR, cyclic alkylamino, imidazolyl, alkylpiperazinyl, morpholino;

15 wherein each R is independently selected from an optionally substituted C<sub>1-6</sub> alicyclic or an optionally substituted C<sub>3-6</sub> cyclic alkyl group, and wherein the said optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NO<sub>2</sub>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>;

20 R can also represent an optionally substituted aryl or an optionally substituted heteroaryl group having up to 12 carbon atoms, and wherein the optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>, and each heteroaryl group contains one or more

25 heteroatoms in its ring system which are each independently selected from O, N or S;

wherein each R<sup>1</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>2</sup>, NR<sup>2</sup><sub>2</sub> or N(OH)R<sup>2</sup> wherein each R<sup>2</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, and

wherein X represents NH, NMe, CH<sub>2</sub>, or O;



A represents an optionally substituted C<sub>1-12</sub> alkyl group wherein the optional substituents are each independently selected from OH, OR<sup>3</sup>, NH<sub>2</sub>, NHR<sup>3</sup>, NR<sup>3</sup><sub>2</sub>, or N(OH)R<sup>3</sup> wherein each R<sup>3</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH; and wherein the optionally substituted C<sub>1-12</sub> alkyl chain can be optionally interrupted or extended by one or more heteroatom containing linkage moieties selected from O, NH, NR<sup>4</sup>, CONH, CONR<sup>4</sup>, NHCO, NR<sup>4</sup>CO, where each R<sup>4</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional R<sup>4</sup> substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>5</sup>, NR<sup>5</sup><sub>2</sub> or N(OH)R<sup>5</sup> wherein each R<sup>5</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH; and

wherein the DNA-targeting unit is any moiety of a molecular weight below 700 Daltons that has an association constant (K) for binding to double-stranded random-sequence DNA of  $>10^3 \text{ M}^{-1}$  at an ionic strength of 0.01 M at 20 °C,

or a pharmacologically acceptable salt thereof.

35 The compound of Formula II as claimed in claim 34, wherein Z is N.

36 The compound of Formula II as claimed in claim 34 wherein X is NH or CH<sub>2</sub>.

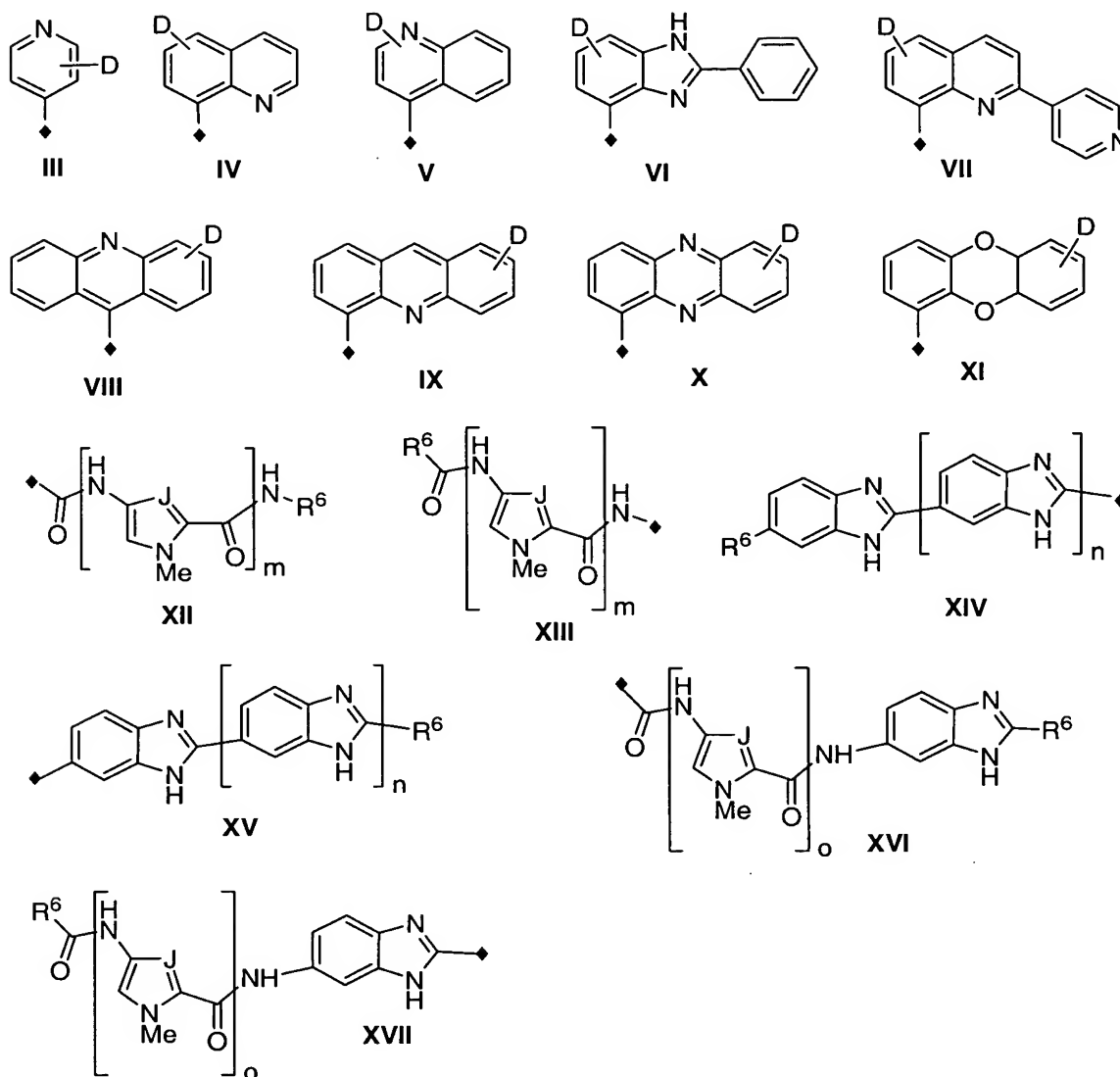
37 The compound of Formula II as claimed in claim 34 wherein the N-oxide is at the 1-position.

38 The compound of Formula II as claimed in claim 34 wherein Y<sub>1</sub> and Y<sub>2</sub> each represent H.

39 The compound of Formula II as claimed in claim 34 wherein Y<sub>1</sub> represents Me.

40 The compound of Formula II as claimed in claim 34 wherein A is selected from -(CH<sub>2</sub>)<sub>6</sub>NH-, -(CH<sub>2</sub>)<sub>3</sub>NH(CH<sub>2</sub>)<sub>3</sub>NHCO-, -(CH<sub>2</sub>)<sub>3</sub>NMe(CH<sub>2</sub>)<sub>3</sub>NHCO-, -(CH<sub>2</sub>)<sub>3</sub>NH-, -(CH<sub>2</sub>)<sub>2</sub>NH(CH<sub>2</sub>)<sub>2</sub>NHCO- or -(CH<sub>2</sub>)<sub>2</sub>NMe(CH<sub>2</sub>)<sub>2</sub>NHCO-.

41 The compound of Formula II as claimed in claim 34 wherein the DNA-targeting unit is selected from one of formulae III- XVII,



wherein in structures **XII-XVII**  $R^6$  is independently selected from an optionally substituted  $C_{1-6}$  alicyclic or an optionally substituted  $C_{3-6}$  cyclic alkyl group, and wherein the optional substituents are each independently selected from; halo, OH,  $OR^7$ ,  $NO_2$ ,  $NH_2$ ,  $NHR^7$ ,  $NR^7R^7$ ,  $SR^7$ , imidazolyl,  $R^7$ -piperazinyl, morpholino,  $SO_2R^7$ ,  $CF_3$ , CN,  $CO_2H$ ,  $CO_2R^7$ , CHO,  $COR^7$ ,  $CONH_2$ ,  $CONHR^7$ ,  $CONR^7R^7$ ;

$R^6$  can also be represent an optionally substituted aryl or an optionally substituted heteroaryl group having up to 12 carbon atoms, and wherein the optional substituents are each independently selected from; halo, OH,  $OR^7$ ,  $NH_2$ ,  $NHR^7$ ,  $NR^7R^7$ , SH,  $SR^7$ , imidazolyl,  $R^7$ -piperazinyl, morpholino,  $SO_2R^7$ ,  $CF_3$ , CN,  $CO_2H$ ,  $CO_2R^7$ , CHO,  $COR^7$ ,  $CONH_2$ ,  $CONHR^7$ ,  $CONR^7R^7$ , and each heteroaryl group contains one or more heteroatoms in its ring system which are each independently selected from O, N or S;

wherein each  $R^7$  is independently selected from an optionally substituted  $C_{1-4}$  alkyl or an optionally substituted  $C_{2-4}$  alkenyl group and wherein the optional substituents are each independently selected from OH,  $OR^8$ ,  $NH_2$ ,  $NHR^8$ ,  $NR^8_2$  or  $N(OH)R^8$  wherein each  $R^8$  is independently selected from  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl, OH,  $NO_2$ ,  $NH_2$ ,  $CF_3$ ,  $CN$ ,  $CO_2H$  or  $SH$ ;

D represents up to four of the following groups as substituents at any available ring carbon position; H,  $R^9$ , hydroxy, alkoxy, halogen,  $NO_2$ ,  $NH_2$ ,  $NHR^9$ ,  $NR^9_2$ ,  $SH$ ,  $SR^9$ ,  $SO_2R^9$ ,  $CF_3$ ,  $CN$ ,  $CO_2H$ ,  $CO_2R^9$ ,  $CHO$ ,  $COR^9$ ,  $CONH_2$ ,  $CONHR^9$  or  $CONR^9R^9$ , cyclic alkylamino, imidazolyl, alkylpiperazinyl, morpholino, wherein each  $R^9$  is independently selected from an optionally substituted  $C_{1-4}$  alkyl or an optionally substituted  $C_{2-4}$  alkenyl group and wherein the optional substituents are each independently selected from OH,  $OR^{10}$ ,  $NH_2$ ,  $NHR^{10}$ ,  $NR^{10}_2$  or  $N(OH)R^{10}$  wherein each  $R^{10}$  is independently selected from  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl, OH,  $NO_2$ ,  $NH_2$ ,  $CF_3$ ,  $CN$ ,  $CO_2H$  or  $SH$ ;

and wherein any available ring carbon position of formulae **III - XVII** can also be optionally replaced by  $-N-$  when the valency and configuration of the formula allows, the point of attachment of formulae **III- XVII** to the A group defined above is represented by  $\blacklozenge$ ; and

wherein in formulae **XII, XIII**, m is selected from 2, 3 or 4, and

wherein in formulae **XII, XIII, XVI** and **XVII**, J is selected from CH or N;  
and wherein in formulae **XIV** and **XV** n is selected from 0, 1 or 2;  
and wherein in formulae **XVI** and **XVII** o is selected from 1 and 2.

The compound of formula II as claimed in claim 41 wherein the DNA targeting unit is selected from one of formulae **V, VI, VII, VIII, IX** or **X**.

The compound of formula II as claimed in claim 41 wherein D of the DNA targeting unit of Formulae **III - XI** is H or Me.

A compound of formula II as claimed in claim 41 selected from a compound; wherein X is  $NH-$ , Y is H, Z is N, position 1-oxide, A is  $-(CH_2)_2NH(CH_2)_2NHCO-$ , the DNA targeting unit represents formula IX and D is H;

wherein X is  $NH-$ , Y is H, Z is N, position 1-oxide, A is  $-(CH_2)_3NH(CH_2)_3NHCO-$ , the DNA targeting unit represents formula IX and D is H;

wherein X is NH-, Y is H, Z is N, position 1-oxide, A is  $-(CH_2)_2NMe(CH_2)_2NHCO-$ , the DNA targeting unit represents formula IX and D is H;

wherein X is NH-, Y is 6-Me, Z is N, position 1-oxide, A is  $-(CH_2)_2NMe(CH_2)_2NHCO-$ ,  
5 the DNA targeting unit represents formula IX and D is H;

wherein X is NH-, Y is H, Z is N, position 1-oxide, A is  $-(CH_2)_3NMe(CH_2)_3NHCO-$ , the DNA targeting unit represents formula IX and D is H;

10 wherein X is NH-, Y is 6-Me, Z is N, position 1-oxide, A is  $-(CH_2)_3NMe(CH_2)_3NHCO-$ , the DNA targeting unit represents formula IX and D is H;

wherein X is NH-, Y is H, Z is N, position 1-oxide, A is  $-(CH_2)_2NMe(CH_2)_2NHCO-$ , the DNA targeting unit represents formula IX and D is Me; and

15 wherein X is NH-, Y is H, Z is N, position 1-oxide, A is  $-(CH_2)_3NMe(CH_2)_3NHCO-$ , the DNA targeting unit represents formula IX and D is Me.

45 A method of treating a subject in need of cancer therapy, said method  
20 comprising the steps of administering to said subject a cytotoxic effective amount of a compound of Formula II as defined in claim 34 to the tumour cells in said subject.

46 The method according to claim 45 wherein the tumour cells are in a hypoxic environment.

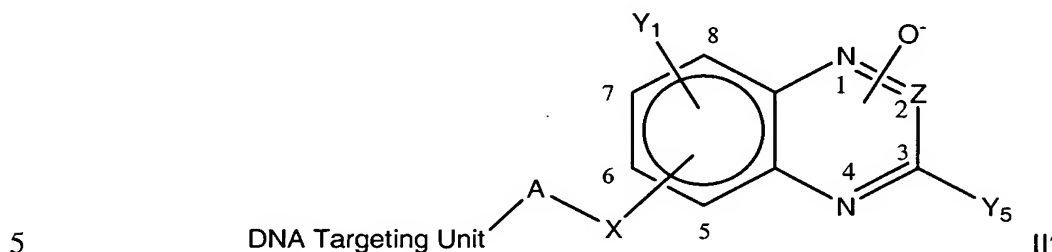
25 47 The method according to claim 45 which includes the further step of administering the compound of Formula II in combination with one or more other chemotherapeutic agents or treatments, including radiotherapy, either simultaneously, or sequentially, depending on the cancer therapy.

30 48 The method according to claim 45 radiotherapy is administered to the tumour cells before, during or after the administration of the compound of Formula II.

49 The method according to claim 47 wherein the chemotherapeutic agents are  
35 selected from Cisplatin or other platinum-based derivatives, Temozolomide or other DNA methylating agents, cyclophosphamide or other DNA alkylating agents,

doxorubicin, mitoxandrone, camptothecin or other topoisomerase inhibitors, methotrexate, gemcitabine or other antimetabolites.

50 A compound of Formula II',



wherein

Z is selected from N or C-CN, and when Z represents N, the N-oxide moiety occupies one of the 1-, 2-, or 4-positions; and when Z represents C-CN, the N-oxide moiety occupies one of the 1-, or 4-positions;

10

Y<sub>1</sub> represents at one or more of the available carbons 5-8 on the benzo ring the following groups:

halo, H, R, OH, OR, NO<sub>2</sub>, NH<sub>2</sub>, NHR, NR<sub>2</sub>, SH, SR, SO<sub>2</sub>R, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R, CHO, COR, CONH<sub>2</sub>, CONHR or CONRR, cyclic alkylamino, imidazolyl, alkylpiperazinyl, morpholino;

15

Y<sub>5</sub> is selected from the following groups halo, H, R, OR, NH<sub>2</sub>, NHR, NR<sub>2</sub>, SO<sub>2</sub>R, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R, CHO, COR, CONH<sub>2</sub>, CONHR or CONRR, cyclic alkylamino, imidazolyl, alkylpiperazinyl, morpholino;

20

wherein each R of groups Y<sub>1</sub> and Y<sub>5</sub> is independently selected from an optionally substituted C<sub>1-6</sub> alicyclic or an optionally substituted C<sub>3-6</sub> cyclic alkyl group, and wherein the optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NO<sub>2</sub>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>, CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>;

25

R can represent an optionally substituted aryl or an optionally substituted heteroaryl group having up to 12 carbon atoms, and wherein the optional substituents are each independently selected from; halo, OH, OR<sup>1</sup>, NH<sub>2</sub>, NHR<sup>1</sup>, NR<sup>1</sup>R<sup>1</sup>, SH, SR<sup>1</sup>, imidazolyl, R<sup>1</sup>-piperazinyl, morpholino, SO<sub>2</sub>R<sup>1</sup>, CF<sub>3</sub>, CN, CO<sub>2</sub>H, CO<sub>2</sub>R<sup>1</sup>, CHO, COR<sup>1</sup>, CONH<sub>2</sub>,

30

CONHR<sup>1</sup>, CONR<sup>1</sup>R<sup>1</sup>, and each heteroaryl group contains one or more heteroatoms in its ring system which are each independently selected from O, N or S;

wherein each R<sup>1</sup> is independently selected from an optionally substituted

C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional

5 substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>2</sup>, NR<sup>2</sup><sub>2</sub> or N(OH)R<sup>2</sup> wherein each R<sup>2</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH, and

wherein X represents NH, NMe, CH<sub>2</sub>, S, SO, SO<sub>2</sub>, CONH, NHCO, CO, CO<sub>2</sub>, or O;

10

A represents an optionally substituted C<sub>1-12</sub> alkyl group wherein the optional substituents are each independently selected from OH, OR<sup>3</sup>, NH<sub>2</sub>, NHR<sup>3</sup>, NR<sup>3</sup><sub>2</sub> or N(OH)R<sup>3</sup> wherein each R<sup>3</sup> is independently selected from C<sub>1-4</sub> alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH; and wherein the optionally substituted C<sub>2-12</sub> alkyl chain can be optionally

15 interrupted by one or more heteroatom containing linkage moieties selected from O, NH, NR<sup>4</sup>, CONH, CONR<sup>4</sup>, NHCO, NR<sup>4</sup>CO, where each R<sup>4</sup> is independently selected from an optionally substituted C<sub>1-4</sub> alkyl or an optionally substituted C<sub>2-4</sub> alkenyl group and wherein the optional R<sup>4</sup> substituents are each independently selected from OH, OR, NH<sub>2</sub>, NHR<sup>5</sup>, NR<sup>5</sup><sub>2</sub> or N(OH)R<sup>5</sup> wherein each R<sup>5</sup> is independently selected from C<sub>1-4</sub>  
20 alkyl, C<sub>2-4</sub> alkenyl, OH, NO<sub>2</sub>, NH<sub>2</sub>, CF<sub>3</sub>, CN, CO<sub>2</sub>H or SH; and

wherein the DNA-targeting unit is any moiety of a molecular weight below 700 Daltons that has an association constant (K) for binding to double-stranded random-sequence DNA of >10<sup>3</sup> M<sup>-1</sup> at an ionic strength of 0.01 M at 20 °C,

25

or a pharmacologically acceptable salt thereof.

51 A compound of Formula II' as claimed in claim 50 wherein Z is N.

30 52 A compound of Formula II' as claimed in claim 50 wherein X is O or CH<sub>2</sub>.

53 A compound of Formula II' as claimed in claim 50 wherein the N-oxide is at the 1-position.

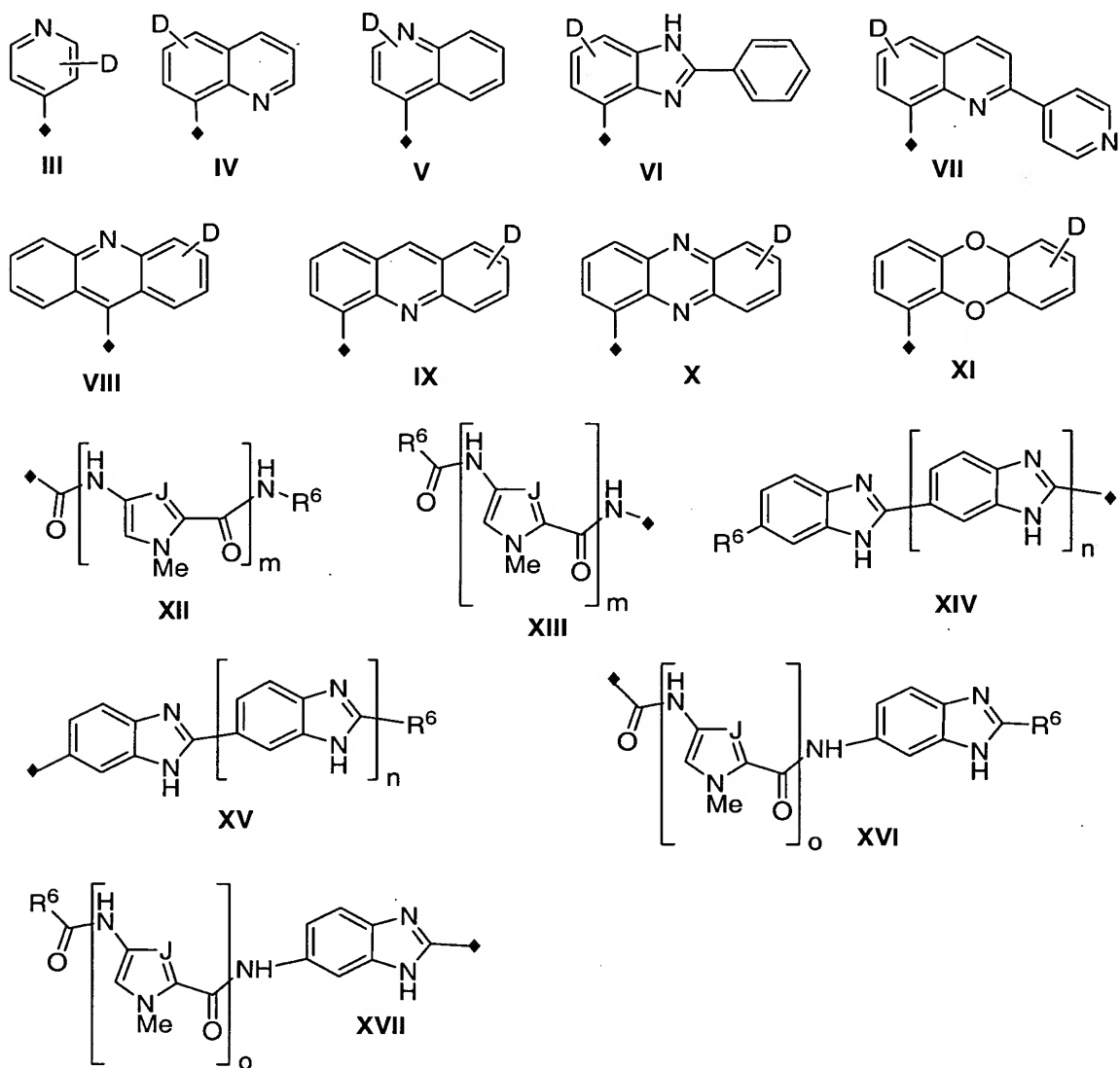
35 54 A compound of Formula II' as claimed in claim 50 wherein Y<sub>1</sub> represents H.

55 A compound of Formula II' as claimed in claim 50 wherein Y<sub>5</sub> represents NHR.

56 A compound of Formula II as claimed in claim 50 wherein A is selected from  $-(CH_2)_6NH-$ ,  $-(CH_2)_3NH(CH_2)_3NHCO-$ ,  $-(CH_2)_3NMe(CH_2)_3NHCO-$ ,  $-(CH_2)_3NH-$ ,  $-(CH_2)_2NH(CH_2)_2NHCO-$  or  $-(CH_2)_2NMe(CH_2)_2NHCO-$ .

5

57 A compound of Formula II as claimed in claim 50 wherein the DNA-targeting unit is selected from one of formulae **III- XVII**,



wherein in structures **XII - XVII**  $R^6$  is independently selected from an optionally substituted  $C_{1-6}$  alicyclic or an optionally substituted  $C_{3-6}$  cyclic alkyl group, and wherein the optional substituents are each independently selected from; halo, OH,  $OR^7$ ,  $NO_2$ ,  $NH_2$ ,  $NHR^7$ ,  $NR^7R^7$ ,  $SR^7$ , imidazolyl,  $R^7$ -piperazinyl, morpholino,  $SO_2R^7$ ,  $CF_3$ , CN,  $CO_2H$ ,  $CO_2R^7$ , CHO,  $COR^7$ ,  $CONH_2$ ,  $CONHR^7$ ,  $CONR^7R^7$ ;

10

$R^6$  represents an optionally substituted aryl or an optionally substituted heteroaryl group having up to 12 carbon atoms, and wherein the optional substituents are each independently selected from; halo, OH,  $OR^7$ ,  $NH_2$ ,  $NHR^7$ ,  $NR^7R^7$ , SH,  $SR^7$ , imidazolyl,  $R^7$ -piperazinyl, morpholino,  $SO_2R^7$ ,  $CF_3$ , CN,  $CO_2H$ ,  $CO_2R^7$ , CHO,  $COR^7$ ,  
 5  $CONH_2$ ,  $CONHR^7$ ,  $CONR^7R^7$ , and each heteroaryl group contains one or more heteroatoms in its ring system which are each independently selected from O, N or S;

wherein each  $R^7$  is independently selected from an optionally substituted  $C_{1-4}$  alkyl or an optionally substituted  $C_{2-4}$  alkenyl group and wherein the optional substituents are each independently selected from OH,  $OR^8$ ,  $NH_2$ ,  $NHR^8$ ,  $NR^8_2$  or  
 10  $N(OH)R^{98}$  wherein each  $R^8$  is independently selected from  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl, OH,  $NO_2$ ,  $NH_2$ ,  $CF_3$ , CN,  $CO_2H$  or SH;

D represents up to four of the following groups as substituents at any available ring carbon position; H,  $R^9$ , hydroxy, alkoxy, halogen,  $NO_2$ ,  $NH_2$ ,  $NHR^9$ ,  $NR^9_2$ , SH,  $SR^9$ ,  $SO_2R^9$ ,  $CF_3$ , CN,  $CO_2H$ ,  $CO_2R^9$ , CHO,  $COR^9$ ,  $CONH_2$ ,  $CONHR^9$  or  $CONR^9R^9$ , cyclic  
 15 alkylamino, imidazolyl, alkylpiperazinyl, morpholino, wherein each  $R^9$  independently selected from an optionally substituted  $C_{1-4}$  alkyl or an optionally substituted  $C_{2-4}$  alkenyl group and wherein the optional substituents are each independently selected from OH,  $OR^{10}$ ,  $NH_2$ ,  $NHR^{10}$ ,  $NR^{10}_2$  or  $N(OH)R^{10}$  wherein each  $R^{10}$  is independently selected from  $C_{1-4}$  alkyl,  $C_{2-4}$  alkenyl, OH,  $NO_2$ ,  $NH_2$ ,  $CF_3$ , CN,  $CO_2H$  or SH;

20 and wherein any available ring carbon position of formulae **III- XVII** can be optionally replaced by -N- when the valency and configuration of the formula allows, the point of attachment of formulae **III- XVII** to the A group defined above is represented by  $\blacklozenge$ ; and wherein in formulae **XII** and **XIII**, m is selected from 2, 3 or 4,  
 25 and wherein in formulae **XII**, **XIII**, **XVI** or **XVII** J is selected from CH or N; and wherein in formulae **XIV** and **XV** n is selected from 0, 1 or 2, and wherein in formulae **XVI** and **XVII** o is selected from 1 or 2.

58 A compound of Formula II' as claimed in claim 57 wherein the DNA targeting  
 30 unit is selected from one of formulae IV – X.

59 A compound of formula II' as claimed in claim 57 wherein D of the DNA targeting unit of Formulae III – XI is H or Me.

35 60 A compound of formula II' as claimed in claim 57 selected from a compound;



wherein X is CH<sub>2</sub>-, Y<sub>1</sub> is H, Y<sub>5</sub> is NHCH<sub>2</sub>CH<sub>2</sub>OMe, Z is -N-, A is -  
(CH<sub>2</sub>)<sub>2</sub>NMe(CH<sub>2</sub>)<sub>2</sub>NHCO-, the DNA targeting unit represents formula IX and D is H;

wherein X is CH<sub>2</sub>-, Y<sub>1</sub> is H, Y<sub>5</sub> is NHCH<sub>2</sub>CH<sub>2</sub>OMe, Z is -N-, A is-  
5 (CH<sub>2</sub>)<sub>2</sub>NH(CH<sub>2</sub>)<sub>3</sub>NHCO-, the DNA targeting unit represents formula IX and D is H;

wherein X is CH<sub>2</sub>-, Y<sub>1</sub> is H, Y<sub>5</sub> is NHCH<sub>2</sub>CH<sub>2</sub>OMe, Z is -N-, A is -  
(CH<sub>2</sub>)<sub>2</sub>NMe(CH<sub>2</sub>)<sub>2</sub>NHCO-, the DNA targeting unit represents formula IX and D is Me;

10 wherein X is CH<sub>2</sub>-, Y<sub>1</sub> is H, Y<sub>5</sub> is NHCH<sub>2</sub>CH<sub>2</sub>OMe, Z is -N-, A is -  
(CH<sub>2</sub>)<sub>2</sub>NMe(CH<sub>2</sub>)<sub>3</sub>NHCO-, the DNA targeting unit represents formula IX and D is Me;

wherein X is CH<sub>2</sub>-, Y<sub>1</sub> is H, Y<sub>5</sub> is NHCH<sub>2</sub>CH<sub>2</sub>OMe, Z is -N-, A is-  
(CH<sub>2</sub>)<sub>2</sub>NMe(CH<sub>2</sub>)<sub>2</sub>NHCO-, the DNA targeting unit represents formula X and D is Me;  
15 and

wherein X is CH<sub>2</sub>-, Y<sub>1</sub> is H, Y<sub>5</sub> is NHCH<sub>2</sub>CH<sub>2</sub>OMe, Z is -N-, A is-  
(CH<sub>2</sub>)<sub>2</sub>NH(CH<sub>2</sub>)<sub>3</sub>NHCO-, the DNA targeting unit represents formula X and D is Me.

20 61 A method of treating a subject in need of cancer therapy, said method  
comprising the steps of administering to said subject a cytotoxic effective amount of a  
compound of Formula II' as defined in claim 50 to the tumour cells in said subject.

62 The method according to claim 61 wherein the tumour cells are in a hypoxic  
25 environment.

63 The method according to claim 61 which includes the further step of  
administering the compound of Formula II' in combination with one or more other  
chemotherapeutic agents or treatments, including radiotherapy, either simultaneously,  
30 or sequentially, depending on the cancer therapy required.

64 The method according to claim 63 wherein radiotherapy is administered to the  
tumour cells before, during or after the administration of the compound of Formula II'.

35 65 The method according to claim 63 wherein the chemotherapeutic agents are  
selected from Cisplatin or other platinum-based derivatives, Temozolomide or other  
DNA methylating agents, cyclophosphamide or other DNA alkylating agents,

doxorubicin, mitoxandrone, camptothecin or other topoisomerase inhibitors, methotrexate, gemcitabine or other antimetabolites.

66 A method of potentiating the cytotoxicity of an amount of a compound of  
5 Formula B as defined in claim 1 or a composition including Formula B as defined in claim 1, which has been administered to a subject in need of cancer therapy, by administering to said subject a compound of Formula A as defined in claim 1 or a composition including Formula A as defined in claim 1.

10 67 The method as claimed in claim 66 which potentiates the hypoxic cytotoxicity of an amount of a compound of Formula B.

68 The method as claimed in claim 66 which includes the further step of  
administering to said subject the compound of Formula A as defined in claim 1 or a  
15 composition including Formula A as defined in claim 1 in combination with one or other chemotherapeutic agents or treatments defined above, including radiotherapy, either simultaneously, or sequentially depending on the cancer therapy required.

69 The method as claimed in claim 68 wherein radiotherapy is administered to  
20 the subject, before, during or after the administration of said compound of Formula A or said composition including Formula A.

70 A method of potentiating the cytotoxicity of one or more chemotherapeutic  
agents as defined above, administered to a subject, by further administering to said  
25 subject a compound of Formula A as defined in claim 1 or a composition including Formula A as defined in claim 1.

71 The method as claimed in claim 68 which potentiates the hypoxic cytotoxicity  
of the one or more chemotherapeutic agents.  
30

72 The method as claimed in claim 71 which includes the further step of  
administering radiotherapy to said subject, either simultaneously or sequentially  
depending on the cancer therapy required.

35 73 The method as claimed in claim 72 wherein the step of administering radiotherapy to the subject, occurs before, during or after the administration of said compound of Formula A or said composition including Formula A.